Comparisons of Job Characteristics

Focus Occupation: Structural Iron and Steel Workers (47-2221)
Associated Occupation: Engine and Other Machine Assemblers (51-2031)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 64

Focus Occupation: Structural Iron and Steel Workers (47-2221)
Associated Occupation: Engine and Other Machine Assemblers (51-2031)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mechanical	6.8	14.7	13.5	0	Current knowledge level may be sufficient
Production and Processing	6.0	8.8	13.2	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 67

Focus Occupation: Structural Iron and Steel Workers (47-2221)
Associated Occupation: Engine and Other Machine Assemblers (51-2031)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Operation Monitoring	6.6	10.3	10.2	0	Current skill level may be sufficient
Quality Control Analysis	5.9	10.1	8.3	<	A higher skill level may be required
Repairing	3.4	8.1	6.2	<	A higher skill level may be required
Troubleshooting	4.5	8.0	5.9	<<	Extensive development of skills in this area may be required
Equipment Maintenance	3.5	7.9	5.7	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	5.5	6.1	>	Skill level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 63

Focus Occupation: Structural Iron and Steel Workers (47-2221)
Associated Occupation: Engine and Other Machine Assemblers (51-2031)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Arm-Hand Steadiness	6.8	11.1	14.3	>>	Current ability level is likely more than sufficient
Visualization	7.5	10.7	12.3	>	Current ability level is likely sufficient
Finger Dexterity	7.6	10.6	12.0	>	Current ability level is likely sufficient
Manual Dexterity	6.5	10.3	13.5	>>	Current ability level is likely more than sufficient
Control Precision	6.6	10.1	13.4	>>	Current ability level is likely more than sufficient
Multilimb Coordination	6.0	10.0	15.3	>>	Current ability level is likely more than sufficient
Extent Flexibility	4.8	9.6	12.1	>	Current ability level is likely sufficient
Trunk Strength	5.7	9.6	12.6	>>	Current ability level is likely more than sufficient
Reaction Time	4.8	9.1	12.3	>>	Current ability level is likely more than sufficient
Hearing Sensitivity	5.6	8.5	9.8	>	Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Structural Iron and Steel Workers (47-2221)
Associated Occupation: Engine and Other Machine Assemblers (51-2031)

Work Activities	Exclusivity of Activity
Adhere to safety procedures	12
Fabricate, assemble, or disassemble manufactured products by hand	11
Identify properties of metals for repair or fabrication activities	71
Maintain welding machines or equipment	70
Make independent judgment in assembly procedures	64
Move or fit heavy objects	8
Operate hoist, winch, or hydraulic boom	34
Perform safety inspections in industrial, manufacturing or repair setting	32
Read blueprints	10
Read specifications	23
Use acetylene welding/cutting torch	54
Use arc welding equipment	62
Use combination welding procedures	68
Use hand or power tools	2
Use precision measuring tools or equipment	17
Verify levelness or verticality, using level or plumb bob	72
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 77

Focus Occupation: Structural Iron and Steel Workers (47-2221)
Associated Occupation: Engine and Other Machine Assemblers (51-2031)

Tools and Technologies	Exclusivity
Computers	1
Cutting tools	18
Fastener setting tools	12
Forming tools	2
Holding and clamping tools	3
Lifting equipment and accessories	3
Power tools	2
Prying and bending tools	10
Rough and finishing tools	5
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.